

REMARKS

This amendment is in response to the Official Action dated August 4th, 2008. Claims 1, 2 and 4 have been amended, no claims have been canceled, and claim 5 has been added; as such, claims 1-5 are now pending in this application. Claims 1 and 5 are independent claims. Reconsideration and allowance is requested in view of the claim amendments and the following remarks. These amendments add no new matter. Support for the new and amended claims can be found on page 7, lines 5-26 of the specification.

Information Disclosure Statement

The Action contains a reference to Applicant's Information Disclosure Statement, and the reference WO 01/04528 A1 has been crossed through in the PTO SB/08B form submitted by Applicant. The Examiner's action in this regard was erroneous, and Applicant respectfully requests the Examiner to officially confirm citation of this reference. The reference was cited in the concurrently cited Chinese Patent Office Action, as noted in the Information Disclosure Statement. The reference is also entirely in English, so a statement of relevance is not required, although the noted citation in the CPO Action would suffice for such a requirement if it were required. Finally, Applicant has confirmed that a completely legible, full copy of the reference has been received by the USPTO, as it is entirely viewable on the USPTO PAIR Image File Wrapper facility. Applicant requests confirmation of citation and consideration in the next Action, either through an initialed PTO SB/08B or through inclusion on a PTO-892.

Specification

The specification has been objected to for containing an explicit claim reference. Applicant appreciates that attention to the specification in this regard and has amended the noted paragraph to remove the objectionable reference. Reconsideration and withdrawal of the objection to the specification is respectfully requested.

35 USC § 112, ¶2 Rejections

Claims 1-4 have been rejected under 35 U.S.C. § 112, ¶2, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention.

Specifically, Claim 1 recites the limitations “the oxygen-supplying passage” in line 3, “the aperture” in line 11, “the set value” in line 12, “the respiration signal” in line 14, and “the flow rate set” in line 17. The Office Action alleges that there is insufficient antecedent basis for these limitations in the claims. Applicant submits that appropriate corrections have been made in this regard in the amendments filed herein.

With regards to claim 2, the Office Actions alleges there is insufficient antecedent basis for the limitation “the full close” in line 2 and “the full open state” in line 3. Applicant submits that appropriate corrections have been made regarding these features.

With regard to claim 4, Applicant has amended the claim and submits that the phrase “adsorption-type oxygen concentrating means” is unambiguous and clear on its face. It is also noted that page 5, lines 17-32 of the specification disclose an “adsorption-type oxygen concentrating means”. Withdrawal of this rejection is respectfully requested.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 1-4 under 35 U.S.C. § 112, ¶2 as being indefinite.

35 USC § 102 Rejections

Claims 1 and 4 have been rejected under 35 U.S.C. § 102(e) as being anticipated by Yagi et al (US 20002/0038656, hereinafter referred to as “Yagi ‘656”). Applicant respectfully traverses this rejection.

Claim 1 recites: *[a]n oxygen supplying apparatus comprising an oxygen generating means, an oxygen supplying means for supplying the oxygen generated by the oxygen generating means to a user and an automatic closing valve placed on an oxygen-supplying passage, wherein the oxygen supplying apparatus comprising:*

a respiration sensor which detects the respiration of the user and provides a respiration signal;

a supply method setting means which selects the supply in a continuous flow or the supply in synchronism with the respiration of the user;

a flow rate setting means for a supply flow rate set value; and,

a controlling means which controls an aperture of the automatic closing valve corresponding to the supply flow rate set value of the flow rate setting means by receiving a supply method setting signal of the continuous flow, or opens the automatic closing valve on the inhalation starting point based on the respiration signal of the respiration sensor by receiving a supply method setting signal of the synchronous flow and at the same time controls the open time of the automatic closing valve corresponding to the flow rate set value, wherein the automatic closing valve is controlled by the controlling means which had taken the information set by the supply method setting means and the flow rate setting means.

These claimed features are not disclosed nor suggested by Yagi '656. Yagi '656 discloses a small oxygen enriching apparatus which can supply oxygen enriched gas at a high flow rate. The oxygen enriching apparatus is capable of producing high-concentration oxygen from air through the adsorption removal of nitrogen from the air and supplying the high-concentration oxygen to the patient. Yagi '656 discloses the conventional respiration synchronized-type oxygen supplying apparatus that requires a dual piping system (figure 1, elements 19a and 19b). The apparatus of Yagi '656 consists of supplying oxygen for continuous flow through a first piping means and another for supplying oxygen for respiration synchronized flow through second piping means. Supplying oxygen in this manner is not preferable because the piping construction itself is complicated and from the point of view of portability, the oxygen supplying apparatus becomes heavy and large-sized due to the additional switching valve and the passage closing valve.

Further, the apparatus of Applicant's claim 1 runs such that when a flow rate (first flow rate) is set within a range below the continuous base flow rate (2 L/m), oxygen enriched gas is supplied continuously in accordance with the set flow rate. On the other hand, when a flow rate (second flow rate) is greater than the continuous base flow rate (2 L/min), oxygen enriched gas is supplied in the breath-synchronized control in accordance with the set flow rate (see [0102], [0103], and [0131-0134]). Further, the controller 59 detects inhalation by use of the pressure sensor 55; calculates an averaged breathing cycle time from an average value of the past 2-5 breathing cycle time; regards one-third of the averaged breathing cycle time as an inhalation period; and opens the electromagnetic valve 45 over the inhalation period to thereby supply oxygen-enriched gas to the patient (see [0126]).

In the apparatus of Yagi '656, when oxygen enriched gas is supplied continuously, the flow rate is adjusted in accordance with the set flow rate by controlling an orifice of the flow-rate setting unit 47, not by controlling the aperture of the electromagnetic valve 45 under the control of the controller 59 (see [0102], [0103], and [0131]). On the other hand, in the Applicant's claimed

invention, the flow rate is adjusted in accordance with the set flow rate by controlling the aperture of the automatic closing valve under the control of the controlling means.

Second, in the aperture of Yagi '656, when a flow rate (first flow rate) is set within a range below the continuous base flow rate by operating the flow-rate setting unit 47, oxygen enriched gas is supplied continuously in accordance with the set flow rate. And when a flow rate (second flow rate) is greater the continuous base flow rate (2 L/min), oxygen enriched gas is supplied in the breath-synchronized control in accordance with the set flow rate (see [0102], [0103], and [0131-0134]). The flow-rate setting unit 47 of Yagi '656 works as both the supply method setting means and the flow rate setting means. Moreover, in the Applicant's invention of amended claim 1 and 5, the automatic closing valve is controlled by the controlling means which had taken the information set by the supply method setting means and the flow rate setting means, or the supply method setting means and the flow rate setting means are composed separately and independently.

Therefore, the apparatus of Yagi '656 cannot supply oxygen enriched gas in the breath-synchronized control, when a flow rate is set within a range below the continuous base flow rate (2 L/min). But Applicant's invention can supply oxygen enriched gas in the breath-synchronized control, even if a flow rate is set within a range below the continuous base flow rate or not.

Accordingly, Applicant respectfully requests that the rejection of claims 1 and 4 under 35 U.S.C. § 102(b) as being anticipated by Yagi '656 be withdrawn.

35 USC 103 Rejections

Claims 2 and 3 have been rejected under 35 U.S.C. § 103 as being unpatentable over Yagi '656 alone. Applicant respectfully traverses this rejection.

Claims 2 and 3 depend from and thus incorporate the features of claims 1, which are neither disclosed nor suggested by Yagi '656, for the reasons stated above.

Regarding claim 2, Applicant respectfully submits that there is no motivation for or suggestion of modifying the diameter of the automatic closing valve (45) of Yagi '656 to have "a response time from a full close state to a full open state of 0.1 sec or less." Applicant notes that even when obviousness is based on a single prior art reference, there must be a showing of suggestion or motivation to modify the teachings of that reference. The Office Action admits Yagi '656 is silent regarding the automatic closing valve to have "a response time from a full close state to a full open state of 0.1 sec or less."

Accordingly, Applicant respectfully requests that the rejection of and claims 2 and 3 under 35 U.S.C. § 103(a) as being unpatentable over Yagi '656 be withdrawn.

Double Patenting Rejection

Claims 1-4 are provisionally rejected on the grounds of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 4, and 7 of co-pending Application No. 10/569,463. Applicant does not concede the propriety of these grounds of rejection, and asks that the requirement for a terminal disclaimer be held in abeyance pending the indication of allowable subject matter, so that Applicant can give an assessment at that time of the differences between what is claimed and allowed herein vis-à-vis the '463 application.

Conclusion

In view of the foregoing arguments, all claims are believed to be in condition for allowance. If any further issues remain, the Examiner is invited to telephone the undersigned to resolve them.

This response is believed to be a complete response to the Office Action. However, Applicant reserves the right to set forth further arguments supporting the patentability of their claims, including the separate patentability of the dependent claims not explicitly addressed herein, in future papers. Further, for any instances in which the Examiner took Official Notice in the Office Action, Applicant expressly does not acquiesce to the taking of Official Notice, and respectfully request that the Examiner provide an affidavit to support the Official Notice taken in the next Office Action, as required by 37 CFR 1.104(d)(2) and MPEP § 2144.03.

Dated:

Respectfully submitted,

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